

WHAT IS CLAIMED IS:

- sub 1
1. A method for inhibiting the growth of a cancer cell comprising contacting the cancer cell with a thiazolidinedione compound in an amount effective to inhibit growth of the cancer cell.
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2. The method of claim 1, wherein the thiazolidinedione compound is a troglitazone.
3. The method of claim 1, wherein the thiazolidinedione compound is a pioglitazone.
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4. The method of claim 1, wherein the thiazolidinedione compound is a rosiglitazone.
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5. The method of claim 1, wherein the cell is a mammalian cell.
- sub B1
6. The method of claim 5, wherein the cell is a human cell.
7. The method of claim 1, wherein the contacting occurs *in vitro*.
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8. The method of claim 1, wherein the contacting occurs *in vivo*.
9. The method of claim 1, wherein the cell is selected from a group consisting of a bladder, blood, bone, bone marrow, brain, breast, colon, esophagus, gastrointestinal, head, kidney, liver, lung, nasopharynx, neck, ovary, prostate, skin, stomach, and uterus cell.
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- sub B2
10. The method of claim 9, wherein the cell expresses PPAR- γ .
11. The method of claim 9, wherein the cancer cell is a bone cancer cell.
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12. The method of claim 11, wherein the bone cancer cell is an osteosarcoma cell.

13. The method of claim 11, ~~wherein~~ the cell is a precursor to osteosarcoma.

14. The method of claim 9, wherein the cancer cell is an ovarian cancer cell.

15. The method of claim 9, wherein the cancer cell is a renal cancer cell.

16. ~~The method of claim 1, further comprising contacting the cell with a
chemotherapeutic drug.~~

17. The method of claim 16, wherein the chemotherapeutic drug comprises an alkylating agent, mitotic inhibitor, antibiotic, nitrosourea, antimetabolite, corticosteroid hormone, or other antineoplastic agent.

18. ~~The method of claim 17, wherein the chemotherapeutic drug comprises an alkylating agent.~~

19. The method of claim 17, wherein the chemotherapeutic drug comprises a mitotic inhibitor.

20. The method of claim 17, wherein the chemotherapeutic drug comprises an antibiotic.

21. The method of claim 17, wherein the chemotherapeutic drug comprises a nitrosourea.

22. The method of claim 17, wherein the chemotherapeutic drug comprises an antimetabolite.

23. The method of claim 17, wherein the chemotherapeutic drug comprises a corticosteroid hormone.

24. The method of claim 17, wherein the chemotherapeutic drug comprises an antineoplastic agent.

5 25. The method of claim 1, wherein the thiazolidinedione compound is contacted with a cancer cell by administering the thiazolidinedione regionally, endoscopically, intravenously, intralesionally, percutaneously, subcutaneously, intraperitoneally, intratracheally, intramuscularly, or by perfusion.

10 26. The method of claim 17, wherein the thiazolidinedione and the chemotherapeutic drug are suitably dispersed in a pharmacologically acceptable formulation.

27. The method of claim 1, wherein the thiazolidinedione compound is contacted with the cell at the same time as contact with the chemotherapeutic agent.

28. The method of claim 1, wherein the cancer cell is a tumor cell in a tumor.

29. The method of claim 28, further comprising resecting the tumor.

30. The method of claim 28, further comprising ~~irradiating said tumor cell with X-ray irradiation, UV irradiation, γ -irradiation, or microwaves.~~

31. The method of claim 30, wherein the thiazolidinedione compound is contacted with the cell at the same time as irradiation.

32. The method of claim 25, further comprising contacting the cell with a therapeutic polynucleotide selected from the group consisting of a ~~Dp~~ gene, p21, p16, p27, E2F, Rb, APC, DC, NF-1, NF-2, WT-1, MEN-I, MEN-II, BRCA1, VHL, FCC, MCC, *ras*, *myc*, *neu*, *raf*, *erb*, *src*, *fms*, *jun*, *trk*, *ret*, *gsp*, *hst*, *bcl*, *abl*, Bax, Bcl-X_s and E1A.

33. A method for treating cancer in a patient comprising administering to the patient troglitazone and a chemotherapeutic drug in an amount effective to inhibit the cancer.

34. A method for inhibiting the cell cycle progression of a mammalian cancer cell comprising contacting the cell with an amount of troglitazone effective to inhibit the cell cycle progression of the cell.

35. A method of treating cancer in a patient comprising administering to the patient a therapeutically effective amount of troglitazone and a chemotherapeutic drug.

36. A method for treating microscopic residual cancer comprising the steps of:

- (i) identifying a patient having a resectable tumor;
- (ii) resecting said tumor; and
- (iii) contacting the tumor bed with troglitazone and a chemotherapeutic drug.

37. A method for treating a subject having a tumor comprising the steps of:

- (i) surgically revealing said tumor; and
- (ii) contacting said tumor with troglitazone and a chemotherapeutic drug.

38. A method for treating a subject having a tumor comprising the step of perfusing said tumor, over an extended period of time, with troglitazone and a chemotherapeutic drug.